


ATTACH YOUR FILE

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	<b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b>  <b>Grant Agreement</b>		ASSISTANCE ID NO.			DATE OF AWARD 04/25/2007  MAILING DATE 05/02/2007  ACH# 2011
			PRG	DOC ID	AMEND#	
			RD -	83329301	- 0	
			TYPE OF ACTION New			
RECIPIENT TYPE: Private University		Send Payment Request to: Las Vegas Finance Center				
RECIPIENT: Duke University P.O. BOX 90077 Durham, NC 27708-0077 EIN: 56-0532129		PAYEE: Director, ORS Duke University P.O. Box 90077 Durham, NC 27708-0077				
PROJECT MANAGER		EPA PROJECT OFFICER		EPA GRANT SPECIALIST		
Marie Miranda LSRC A133, Box 90326 Durham, NC 27708 E-Mail: mmiranda@duke.edu Phone: 919-613-8023		Nigel Fields 1200 Pennsylvania Ave, NW, 8723F Washington, DC 20460 E-Mail: fields.nigel@epa.gov Phone: 202-343-9767		Joyce Blake 1200 Pennsylvania Ave, NW, 3903R E-Mail: Blake.Joyce@epamail.epa.gov Phone: 202-564-5344		
<b>PROJECT TITLE AND DESCRIPTION</b> FDP - Southern Center on Environmentally-Driven Disparities In Birth Outcomes - The objective of the Southern Center on Environmentally-Driven Disparities in Birth Outcomes (SCEDDBO) is to determine how environmental, social, and host factors jointly drive health disparities and birth outcomes. The Center will support the following three highly integrated studies: (1) a geographic information system based, statistics project; (2) a community-based birth cohort; and (3) a basic science animal model.						
BUDGET PERIOD 12/01/2006 - 11/30/2011		PROJECT PERIOD 12/01/2006 - 11/30/2011		TOTAL BUDGET PERIOD COST \$7,735,637.00		
				TOTAL PROJECT PERIOD COST \$7,735,637.00		
<b>NOTICE OF AWARD</b>						
Based on your application dated 08/09/2006, including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA), hereby awards \$3,094,908. EPA agrees to cost-share 100.00% of all approved budget period costs incurred, up to and not exceeding total federal funding of \$3,094,908. Such award may be terminated by EPA without further cause if the recipient fails to provide timely affirmation of the award by signing under the Affirmation of Award section and returning all pages of this agreement to the Grants Management Office listed below within 21 days after receipt, or any extension of time, as may be granted by EPA. This agreement is subject to applicable EPA statutory provisions. The applicable regulatory provisions are 40 CFR Chapter 1, Subchapter B, and all terms and conditions of this agreement and any attachments.						
ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)			AWARD APPROVAL OFFICE			
ORGANIZATION / ADDRESS			ORGANIZATION / ADDRESS			
Grants Administration Division 1200 Pennsylvania Ave, NW 3903R Washington, DC 20460			Environmental Protection Agency Office of Research and Development 1200 Pennsylvania Ave, NW Washington, DC 20460			
THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY						
SIGNATURE OF AWARD OFFICIAL		TYPED NAME AND TITLE		DATE		
Digital signature applied by EPA Award Official		Mildred Lee, Chief - Grants Operations Branch A, 3903R		04/25/2007		
<b>AFFIRMATION OF AWARD</b>						
BY AND ON BEHALF OF THE DESIGNATED RECIPIENT ORGANIZATION						
SIGNATURE		TYPED NAME AND TITLE		DATE		

## RD - 83329301 - 0 Page 2

FUNDS	FORMER AWARD	THIS ACTION	AMENDED TOTAL
EPA Amount This Action	\$	\$ 3,094,908	\$ 3,094,908
EPA In-Kind Amount	\$	\$	\$ 0
Unexpended Prior Year Balance	\$	\$	\$ 0
Other Federal Funds	\$	\$	\$ 0
Recipient Contribution	\$	\$	\$ 0
State Contribution	\$	\$	\$ 0
Local Contribution	\$	\$	\$ 0
Other Contribution	\$	\$	\$ 0
Allowable Project Cost	\$ 0	\$ 3,094,908	\$ 3,094,908

Assistance Program (CFDA)	Statutory Authority	Regulatory Authority
66.509 - Science to Achieve Results (STAR) Program	Clean Air Act: Sec. 103 Clean Water Act: Sec. 104 Safe Drinking Water Act: Sec. 1442	N/A

## Fiscal

[illegible]

Budget Summary Page: Southern CTR for Environmentally-Driven Disparities in Birth Outcomes

Table A - Object Class Category (Non-construction)	Total Approved Allowable Budget Period Cost
1. Personnel	(b) (4), (b) (6)
2. Fringe Benefits	
3. Travel	
4. Equipment	
5. Supplies	
6. Contractual	
7. Construction	
8. Other	
9. Total Direct Charges	
10. Indirect Costs: % Base see terms and conditions	
11. Total (Share: Recipient 0.00 % Federal 100.00 %.)	\$7,735,637
12. Total Approved Assistance Amount	\$7,735,637
13. Program Income	\$0
14. Total EPA Amount Awarded This Action	\$3,094,908
15. Total EPA Amount Awarded To Date	\$3,094,908



## **Administrative Conditions**

**Minority Business Enterprises (MBE)/Women's' Business Enterprises (WBE) Terms and Conditions for non-SRF Recipients with EPA-approved FY2006 MBE/WBE Goals that were not based on historical data of dollars awarded to MBEs and WBEs**

1. The recipient agrees to comply with the requirements of EPA's Program for Utilization of Small, Minority and Women's Business Enterprises in procurement under assistance agreements:

(a) The recipient accepts the applicable FY2006 Minority Business Enterprise (MBE)/Womens' Business Enterprise (WBE) "fair share" goals/objectives negotiated with EPA by the State as the FY2006 MBE/WBE "fair share" goals/objectives as follows:

	MBE	WBE
Construction	8%	5%
Supplies	7%	9%
Services	7%	9%
Equipment	9%	9%

OR

Combined Rate:      %                      %

If the recipient wishes to negotiate their own MBE/WBE goals, the recipient must submit proposed MBE/WBE goals based on an availability analysis, or, at their option, a disparity study, of qualified MBEs and WBEs to do the work in the relevant market for construction, equipment, services, and supplies. The recipient agrees to submit proposed "fair share" objectives, together with the supporting availability analysis or disparity study, to the MBE/WBE Coordinator, Veronica Squirrell, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW Mail Code 3903R, Room 51275, Washington, DC 20460, 202-564-5347, within 30 days of award. EPA will conclude "fair share" negotiations within 30 days of receiving the submission. Once EPA approves the objectives, the recipient agrees to apply them in accordance with paragraphs 1.(b)-(f).

(b)(1) The recipient agrees to ensure, to the fullest extent possible, that at least the applicable "fair share" objectives of Federal funds for prime contracts or subcontracts for supplies, construction, equipment or services are made available to organizations owned or controlled by socially and economically disadvantaged individuals, women and Historically Black Colleges and Universities.

(2) For assistance agreements related to research under the Clean Air Act Amendments of 1990, the recipient agrees to ensure, to the fullest extent possible, that at least the applicable "fair share" objectives of Federal funds for prime contracts or subcontracts for supplies, construction, equipment or services are made available to organizations owned or controlled by socially and economically disadvantaged individuals, women, disabled Americans, Historically Black Colleges and Universities, Colleges and Universities having a student body in which 40% or more of the students are Hispanic, minority institutions having a minority student body of 50% or more, and private and voluntary organizations controlled by individuals who are socially and economically disadvantaged.

(c) The recipient agrees to include in its bid documents the applicable "fair share" objectives of Federal funds and require all of its prime contractors to include in their bid documents for subcontracts the negotiated "fair share" percentages.

(d) The recipient agrees to follow the six affirmative steps or positive efforts stated in 40 CFR 30.44(b), 40 CFR 31.36(e), or 40 CFR 35.6580, as appropriate, and retain records documenting compliance.

(e) The recipient agrees to submit an EPA form 5700-52A "MBE/WBE Utilization Under Federal Grants,



Cooperative Agreements and Interagency Agreements," beginning with the Federal fiscal year quarter the recipient receives the award and continuing until the project is completed. These reports must be submitted to MBE/WBE Coordinator, Veronica Squirrell, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW Mail Code 3903R, Room 51275, Washington, DC 20460, 202-564-5347, within 30 days of the end of the Federal fiscal quarter (January 30, April 30, July 30, and October 30). For assistance awards for continuing environmental programs (40 CFR Part 35, Subpart A and B) and assistance awards with institutions of higher education, hospitals and other non-profit organizations, the recipient agrees to submit an EPA form 5700-52A to MBE/WBE Coordinator, Veronica Squirrell, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW Mail Code 3903R, Room 51275, Washington, DC 20460, 202-564-5347, by October 30 of each year.

(f) If race and /or gender neutral efforts prove inadequate to achieve a "fair share" objective, the recipient agrees to notify EPA in advance of any race and/or gender conscious action it plans to take to more closely achieve the "fair share" objective.

2. The recipient agrees, if a contract is awarded under this assistance agreement, in accordance with Section 129 of Public Law 100-590, the Small Business Administration and Reauthorization and Amendment Act of 1988, to utilize and encourage the contractor to utilize small business located in rural areas (SBRA), to the maximum extent possible, through the use of the six affirmative steps.

3. EPA may take corrective action under 40 CFR Parts 30, 31, and 35, as appropriate, if the recipient fails to comply with these terms and conditions.

2. The Director, Grants Administration Division, has approved a deviation waiving the requirements of 40 CFR Parts 30 and 40 for this project. This project will be subject to the current Federal Demonstration Project General Terms and Conditions and the EPA Agency specific terms and conditions.

3. Recipients shall fully comply with Subpart C of 40 CFR Part 32, entitled "Responsibilities of Participants Regarding Transactions." Recipient is responsible for ensuring that any lower tier covered transaction, as described in Subpart B of 40 CFR Part 32, entitled "Covered Transactions," includes a term or condition requiring compliance with Subpart C. Recipient is responsible for further requiring the inclusion of a similar term or condition in any subsequent lower tier covered transactions. Recipient acknowledges that failing to disclose the information required under 40 CFR 32.335 may result in the delay or negation of this assistance agreement, or pursuance of legal remedies, including suspension and debarment.

Recipients may access the Excluded Parties List System at <http://www.epls.gov>. This term and condition supersedes EPA Form 5700-49, "Certification Regarding Debarment, Suspension, and Other Responsibility Matters."

4. EPA is partially funding this budget period and will consider funding the balance of the budget request contingent upon satisfactory progress as certified by the EPA Project Officer, the availability of funds, and EPA priorities. It is understood that the scope of work will be renegotiated to reflect the amount awarded if additional funds are not available.

5. Payment to consultants. EPA participation in the salary rate (excluding overhead) paid to individual consultants retained by recipients or by a recipient's contractors or subcontractors shall be limited to the maximum daily rate for a Level IV of the Executive Schedule (formerly GS-18), to be adjusted annually. This limit applies to consultation services of designated individuals with specialized skills who are paid at a daily or hourly rate. As of January 1, 2007, the limit is \$557.28 per day and \$69.66 per hour. This rate does not include transportation and subsistence costs for travel performed (the recipient will pay these in accordance with their normal travel reimbursement practices).

Subagreements with firms for services which are awarded using the procurement requirements in 40 CFR 30 or 31, as applicable, are not affected by this limitation unless the terms of the contract provided the recipient with responsibility for the selection, direction, and control of the individuals who will be providing

services under the contract at an hourly or daily rate of compensation. See 40 CFR 31.36(j) or 30.27(b).

6. The recipient agrees that work shall not begin on this project until the enclosed "Preaward Compliance Review Report", EPA Form 4700-4, has been completed and returned together with the signed acceptance of this assistance agreement/amendment.

7. Indirect costs are calculated at 55.50% MTDC in Year 1 and 56.00 MTDC in Years 2 - 5.

### **Programmatic Conditions**

1. The recipient agrees to comply with the terms and conditions outlined in Attachment 1 to this Agreement.

## Attachment 1: Programmatic Terms and Conditions

### 1. Advisory Committee

a. The Center Director will establish and maintain a **Science Advisory Committee (SAC)**. EPA recommends that the SAC consist of approximately nine to twelve individuals who are experts in technical fields related to the goals of the Center. The function of this Committee is to assist in evaluating the merit, value and contribution of research projects, and the relevance and importance of individual organizational elements to accomplishing the overall goals of the Center. The Committee will elect a chair and vice-chair from among its members. The EPA Project Officer will serve as a non-voting observer. The SAC must meet at least once a year to discuss progress of Center activities unless a different schedule is approved by the EPA.

b. The committee must have an appropriate balance of members from academia, industry, environmental organizations, and governmental entities, representing a range of opinions and environmental disciplines.

c. The Center Director must maintain records of any decisions he or she proposes which deviate from the recommendations of the SAC.

### 2. Reporting.

a. **Overview.** The recipient agrees to provide EPA's Project Officer *annual Center progress reports* with associated *annual research project summaries*, and a *final Center report* with *final project summaries*, along with a copy of or reference for any papers resulting from the research conducted. Requirements for the content of reports and summaries are stated below. Any detail specific to this Center in addition to those below may be established by the Project Officer and negotiated with the Center Director in advance, provided the frequency of reporting is not more than quarterly.

b. **Annual Center Progress Reports.** The recipient agrees to submit *annual progress reports* to the EPA Project Officer within 90 days after the end of each reporting period. Annual Technical and Financial Reports should discuss the activities of the Center as a whole. These reports must include, as applicable:

(1) A discussion of the research performed during the reporting period and results (outputs/outcomes) that have been generated.



(2) Difficulties the Center has (or might) encountered in carrying out its mission, and remedial actions (to be) taken.

(3) A discussion of any absence or changes of key personnel involved in the individual projects or Center management. If the goals/hypotheses of any project funded under this Center have been modified from the original application, provide the revised goals and discuss the reason for the change.

(4) A discussion of expenditures to date along with a comparison of the percentage of the proposed work (e.g., setting up the Center or core functions, major projects) that is completed relative to the proposed schedules, and an explanation of any costs which are significantly higher than originally estimated.

(5) A discussion of how the quality assurance requirements of the following are being met: (1) 40 C.F.R 30.54; (2) G-1 STAR, *Guidance on Satisfying EPA Quality System Requirements for STAR Grants* (for individual projects), and (3) this agreement. *For more information on quality assurance see: <http://es.epa.gov/ncer/guidance/>.*

(6) Planned activities for the subsequent reporting period.

c. **Annual Project Summaries.** For *each* project funded under this grant, an annual project summary must be submitted with the annual Center progress reports. These will be placed on the EPA/NCER homepage. NCER will not alter the content of a summary without the approval of the Principal Investigator. The summary should be submitted in the format shown in **Attachment A** and need not be more than two pages.

d. **Final Center Report.** The recipient agrees to submit a final report to the EPA Project Officer by ninety calendar days after the expiration of the project period. The Project Officer may require clarifications of the final report before the report is accepted. This document must include:

(1) A discussion of the accomplishments/activities (outputs/outcomes) of the Center during the entire period of funding, describing achievements with respect to the mission of the Center, and incorporating quality assurance considerations.

(2) Details of any significant technical aspects of funded projects (both negative and positive) not included in the final *project* summaries.

(3) An evaluation of (a) the technical effectiveness and economic feasibility of the methods or techniques investigated, and/or (b) an explanation of how the funded research adds to our understanding of or solutions for environmental problems, or is otherwise of benefit to the environment and human health, written in terms understandable by the educated layman.

(4) For projects involving computer modeling, a statement that the recipient agrees to retain the following information in the research file:

(a) Model description and key assumptions;

(b) Performance criteria for the model (related to the intended use);

(c) Test results to demonstrate the model performance criteria were met (e.g., code verification, sensitivity analyses, history matching with lab or field data,

as appropriate);

(d) Whether or not the theory and mathematical algorithms were peer reviewed, and, if so, a summary of theoretical strengths and weaknesses; and

(e) Documentation (e.g., users' guide, journal publications, code).

e. **Final Project Summaries.** The recipient agrees to submit project summaries for each funded research study with the final Center report. Summaries will be placed on the EPA/NCER Homepage along with a list of publications. NCER will not alter the content of a summary without the approval of the Principal Investigator. Each summary should be submitted in the format shown in **Attachment B**, recommended at three to five pages.

f. **Form of Reports.** The recipient agrees to provide final and annual reports and associated summaries in an electronic format. The electronic versions shall be submitted in PC format, using commonly available word processing software or PDF. When requested by the Project Officer, these reports shall also be submitted in hardcopy format.

### 3. Human Subjects.

Should the Center support human subjects research under this grant, the following requirements apply:

a. According to the provisions of 40 C.F.R. 26, "Protection of Human Subjects," the recipient agrees to comply with EPA's testing and legally effective informed consent methods and procedures for safeguarding the rights and welfare of human subjects involved in approved projects.

b. Per 40 C.F.R. 26.118, no human subjects may be involved in this project(s) until it has been reviewed and approved by EPA's Human Subjects Research Review Official (HSRRO). For such approval, the recipient must forward: (1) proof of the institution's Human Subjects Institutional Review Board (IRB) approval and (2) copies of all other documentation forwarded to the IRB for its approval. Certification must be made by the IRB of the institution which proposes to conduct the work. The Project Officer will forward these to HSSRO for his review and approval. *No effort involving human subjects, including recruitment, may be initiated until EPA has approved the recipient's compliance with these requirements.*

c. The recipient must provide, as part of the Center annual report, evidence of the subsequent review(s) by the IRB as required by 40 C.F.R. 26.109(e) for any projects using human subjects.

d. Files for all projects involving human subjects must be kept by an individual within the Center who is charged by the Center Director with the responsibility of



securing, approving, and recording IRB approvals.

e. The recipient agrees to comply with Subpart D, 45 CFR Part 46, "Additional DHHS Protections for Children Involved as Subjects in Research."

#### **4. Quality Assurance/Quality Control Program.**

a. The recipient must provide acceptable quality assurance and quality control documentation to the EPA Project Officer within 60 days of the acceptance of this agreement. Acceptable documentation will be a Quality Management Plan (QMP). A QMP is a detailed policy statement describing the management and technical activities necessary to plan, implement and assess the effectiveness of the Quality Assurance (QA) system and Quality Control (QC) operations within the Center. For guidance on writing a QMP, see <http://www.epa.gov/quality/qmps.html>. The QMP must be approved by the Project Officer before any work involving environmental measurements begin.

b. The Center Director will designate one individual within the organization to serve as Quality Assurance Manager (QAM) for the Center. This individual is responsible for implementing the Center's quality system and coordinating the QA/QC activities within the Center. The QAM must keep complete files on all quality documentation for the Center (e.g. QMP for the Center, various QA/QC plans for each project, audit records, etc.). No project will be supported under this award without prior review and written approval of the QA/QC plan for that project by the Center's QA Manager.

#### **5. Publications, Abstracts and/or Other Public Release of Results.**

a. The recipient agrees to provide copies of, or a reference for, any peer reviewed journal articles resulting from Center-sponsored research, in addition to the reports. EPA encourages the independent publication of the results of its extramural research in appropriate scientific journals. Any journal article so published, however, must contain the following statement:

"Although the research described in this article has been funded wholly or in part by the United States Environmental Protection Agency through grant/cooperative agreement (number) to (name), it has not been subjected to the Agency's required peer and policy review and therefore does not necessarily reflect the views of the Agency and no official endorsement should be inferred."

b. Because NCER intends to post references to all publications resulting from the agreement on its Home Page, the recipient is encouraged to continue to notify the Project Officer, after completion of the grant, of any papers that are published based on the research under the agreement.



c. An acknowledgment of EPA support must be clearly shown on Web pages and stated during all media interviews.

## **6. Peer Reviews.**

a. EPA may elect to undertake periodic **independent peer evaluations** of the Center. At least 60 days notice will be provided before any such review is conducted. It is expected that the Center Director will cooperate fully with the peer review teams.

b. When required, an **activity status statement** must be submitted to the EPA Project Officer describing how the recommendations by any peer review have been implemented. This applies to peer reviews conducted by EPA before the award or during performance. The Center Director and EPA Project Officer will agree on the date the statement is due and the specific recommendations that must be addressed.

## **7. Other Recipient Responsibilities.**

a. The Center Director and other appropriate Center personnel must attend an **annual meeting** with EPA personnel. The date and location of this annual meeting will be set by the EPA Project Officer, in consultation with the Center Director. Chairs of the Advisory Committee are also requested to participate in this annual meeting.

b. No institution may be added to or subtracted from the Center without the express written concurrence of the EPA Project Officer.

c. No **foreign travel** will be funded by this agreement without prior written approval of the EPA.

d. Although 40 CFR 30.25 (f) allows the recipient to grant itself a one-time **extension to the project period** under certain conditions, the recipient may not do so if, via this extension, the project period will exceed five years. Any extension of the expiration date which approaches five years must be requested at least thirty days in advance and approved by the Project Officer and Award Official. This approval is necessary due to certain Federal restrictions on the use of funds and the requirements of 40 C.F.R. 40.125-1. For any other extension the recipient is required to notify the EPA Award Official and Project Officer in writing, with the supporting reasons and revised expiration date, at least 10 days before the expiration date specified in the award.

e. **Program Income.** Program income is "gross income received by the grantee or subgrantee directly generated by a grant supported activity, or earned only as a result of the grant agreement during the grant period." Sources of program income include fees for services performed under the agreement, such as registration at conferences, and proceeds from sales of publications developed with assistance funds.

If program income is generated under this agreement, the recipient will have the choice of allocating the income by adding to funds committed to the agreement (i.e., roll the funds back into the research effort), and/or use it to finance the non-Federal share of the project.


**NCER Assistance Agreement Annual Project Summary**

Date of Report:  
EPA Agreement Number:  
Center Name & Internal Number:  
Project Title:  
Investigator(s):  
Institution(s) of PI(s):  
Research Category:  
Project Period:  
Objective of Research:  
Progress Summary/Accomplishments:  
Publications/Presentations:  
Future Activities:  
Supplemental Keywords:  
Relevant Web Sites:



**NCER Assistance Agreement Final Project Summary**

Date of Final Report:  
EPA Agreement Number:  
Center Name & Internal Number:  
Project Title:  
Investigator(s):  
Institution(s) of PI(s):  
Research Category:  
Project Period:  
Description and Objective of Project:  
Summary of Findings:  
Conclusions:  
Publications/Presentations:  
Supplemental Keywords:  
Relevant Web Sites:

	<b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b>  <b>Assistance Amendment</b>		ASSISTANCE ID NO.			DATE OF AWARD 03/27/2008
			PRG	DOC ID	AMEND#	
			RD - 83329301 - 1			
			TYPE OF ACTION No Cost Amendment			
PAYMENT METHOD: ACH			MAILING DATE 03/31/2008			ACH# 2011
Send Payment Request to: Las Vegas Finance Center						
RECIPIENT TYPE: Private University			PAYEE: Director, ORS Duke University P.O. Box 90077 Durham, NC 27708-0077			
RECIPIENT: Duke University P.O. BOX 90077 Durham, NC 27708-0077 EIN: 56-0532129						
PROJECT MANAGER Marie Miranda LSRC A133, Box 90326 Durham, NC 27708 E-Mail: mmiranda@duke.edu Phone: 919-613-8023		EPA PROJECT OFFICER Linda Bishop 1200 Pennsylvania Ave, NW Washington, DC 20460 E-Mail: Phone: 202-343-9715		EPA GRANT SPECIALIST Joselynn Hawkins 1200 Pennsylvania Ave, NW Washington, DC 20460, 3903R E-Mail: Phone: 202-564-5305		
<b>PROJECT TITLE AND EXPLANATION OF CHANGES</b> FDP - Southern Center on Environmentally-Driven Disparities In Birth Outcomes - General Amendment Requiring Signature; This amendment reflects a revision to the duration dates in accordance with a request received on 5/18/2007.						
BUDGET PERIOD 05/01/2007 - 04/30/2012		PROJECT PERIOD 05/01/2007 - 04/30/2012		TOTAL BUDGET PERIOD COST \$7,735,637.00		TOTAL PROJECT PERIOD COST \$7,735,637.00
<b>NOTICE OF AWARD</b>  Based on your application dated 08/09/2006, including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA), hereby awards \$. EPA agrees to cost-share 0.00% of all approved budget period costs incurred, up to and not exceeding total federal funding of \$3,094,908. Such award may be terminated by EPA without further cause if the recipient fails to provide timely affirmation of the award by signing under the Affirmation of Award section and returning all pages of this agreement to the Grants Management Office listed below within 21 days after receipt, or any extension of time, as may be granted by EPA. This agreement is subject to applicable EPA statutory provisions. The applicable regulatory provisions are 40 CFR Chapter 1, Subchapter B, and all terms and conditions of this agreement and any attachments.						
ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)				AWARD APPROVAL OFFICE		
ORGANIZATION / ADDRESS Grants and Interagency Agreement Management Division 1200 Pennsylvania Ave, NW Mail code 3903R Washington, DC 20460				ORGANIZATION / ADDRESS Environmental Protection Agency Office of Research and Development 1200 Pennsylvania Ave, NW Washington, DC 20460		
<b>THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY</b>						
SIGNATURE OF AWARD OFFICIAL Digital signature applied by EPA Award Official		TYPED NAME AND TITLE Jeff Meetre, Chief - Grants Management Branch A				DATE 03/27/2008
<b>AFFIRMATION OF AWARD</b>						
<b>BY AND ON BEHALF OF THE DESIGNATED RECIPIENT ORGANIZATION</b>						
SIGNATURE		TYPED NAME AND TITLE				DATE 04/17/2008

## EPA Funding Information

RD - 83329301 - 1 Page 2

FUNDS	FORMER AWARD	THIS ACTION	AMENDED TOTAL
EPA Amount This Action	\$ 3,094,908	\$	\$ 3,094,908
EPA In-Kind Amount	\$ 0	\$	\$ 0
Unexpended Prior Year Balance	\$ 0	\$	\$ 0
Other Federal Funds	\$ 0	\$	\$ 0
Recipient Contribution	\$ 0	\$	\$ 0
State Contribution	\$ 0	\$	\$ 0
Local Contribution	\$ 0	\$	\$ 0
Other Contribution	\$ 0	\$	\$ 0
Allowable Project Cost	\$ 3,094,908	\$ 0	\$ 3,094,908

Assistance Program (CFDA)	Statutory Authority	Regulatory Authority
66.509 - Science to Achieve Results (STAR) Program	Clean Air Act: Sec. 103 Clean Water Act: Sec. 104 Safe Drinking Water Act: Sec. 1442	N/A

[illegible]



Table A - Object Class Category (Non-construction)	Total Approved Allowable Budget Period Cost
1. Personnel	\$0
2. Fringe Benefits	\$0
3. Travel	\$0
4. Equipment	\$0
5. Supplies	\$0
6. Contractual	\$0
7. Construction	\$0
8. Other	\$0
9. Total Direct Charges	\$0
10. Indirect Costs: % Base	\$0
11. Total (Share: Recipient <u>0.00</u> % Federal <u>0.00</u> %.)	\$0
12. Total Approved Assistance Amount	\$0
13. Program Income	\$0
14. Total EPA Amount Awarded This Action	\$0
15. Total EPA Amount Awarded To Date	\$3,094,908

**Administrative Conditions**

All Administrative Conditions Remain the Same

**Programmatic Conditions**

All Programmatic Conditions Remain the Same

	<b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b>  <b>Assistance Amendment</b>		ASSISTANCE ID NO.			<b>DATE OF AWARD</b> 09/03/2008  <b>MAILING DATE</b> 09/10/2008  <b>ACH#</b> 2011
			PRG	DOC ID	AMEND#	
			RD -	83329301	- 2	
			TYPE OF ACTION Augmentation: Increase			
			PAYMENT METHOD: ACH			
<b>RECIPIENT TYPE:</b> Private University			<b>Send Payment Request to:</b> Las Vegas Finance Center			
<b>RECIPIENT:</b> Duke University P.O. BOX 90077 Durham, NC 27708-0077 EIN: 56-0532129			<b>PAYEE:</b> Director, ORS Duke University P.O. Box 90077 Durham, NC 27708-0077			
<b>PROJECT MANAGER</b>		<b>EPA PROJECT OFFICER</b>		<b>EPA GRANT SPECIALIST</b>		
Marie Miranda LSRC A133, Box 90326 Durham, NC 27708 E-Mail: mmiranda@duke.edu Phone: 919-613-8023		Linda Bishop 1200 Pennsylvania Ave, NW, 8723F Washington, DC 20460 E-Mail: bishop.linda@epa.gov Phone: 202-343-9715		Joselynn Hawkins 1200 Pennsylvania Ave, NW Washington, DC 20460, 3903R E-Mail: hawkins.joselynn@epa.gov Phone: 202-564-5305		
<b>PROJECT TITLE AND EXPLANATION OF CHANGES</b> FDP - Southern Center on Environmentally-Driven Disparities In Birth Outcomes - The objective of the Southern Center on Environmentally-Driven Disparities in Birth Outcomes (SCEDDBO) is to determine how environmental, social, and host factors jointly drive health disparities and birth outcomes. The Center will support the following three highly integrated studies: (1) a geographic information system based, statistics project; (2) a community-based birth cohort; and (3) a basic science animal model. Incremental Amendment;						
<b>BUDGET PERIOD</b> 05/01/2007 - 04/30/2012		<b>PROJECT PERIOD</b> 05/01/2007 - 04/30/2012		<b>TOTAL BUDGET PERIOD COST</b> \$7,735,637.00		
				<b>TOTAL PROJECT PERIOD COST</b> \$7,735,637.00		
<b>NOTICE OF AWARD</b>  Based on your application dated 08/09/2006, including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA), hereby awards \$1,567,232. EPA agrees to cost-share 0.00% of all approved budget period costs incurred, up to and not exceeding total federal funding of \$4,662,140. Such award may be terminated by EPA without further cause if the recipient fails to provide timely affirmation of the award by signing under the Affirmation of Award section and returning all pages of this agreement to the Grants Management Office listed below within 21 days after receipt, or any extension of time, as may be granted by EPA. This agreement is subject to applicable EPA statutory provisions. The applicable regulatory provisions are 40 CFR Chapter 1, Subchapter B, and all terms and conditions of this agreement and any attachments.						
<b>ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)</b>			<b>AWARD APPROVAL OFFICE</b>			
<b>ORGANIZATION / ADDRESS</b>			<b>ORGANIZATION / ADDRESS</b>			
Grants and Interagency Agreement Management Division 1200 Pennsylvania Ave, NW Mail code 3903R Washington, DC 20460			Environmental Protection Agency Office of Research and Development 1200 Pennsylvania Ave, NW Washington, DC 20460			
<b>THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY</b>						
<b>SIGNATURE OF AWARD OFFICIAL</b>		<b>TYPED NAME AND TITLE</b>		<b>DATE</b>		
Digital signature applied by EPA Award Official		Jeff Meetre, Chief - Grants Management Branch A		09/03/2008		
<b>AFFIRMATION OF AWARD</b>						
<b>BY AND ON BEHALF OF THE DESIGNATED RECIPIENT ORGANIZATION</b>						
<b>SIGNATURE</b>		<b>TYPED NAME AND TITLE</b>		<b>DATE</b>		



## RD - 83329301 - 2 Page 2

FUNDS	FORMER AWARD	THIS ACTION	AMENDED TOTAL
EPA Amount This Action	\$ 3,094,908	\$ 1,567,232	\$ 4,662,140
EPA In-Kind Amount	\$ 0	\$	\$ 0
Unexpended Prior Year Balance	\$ 0	\$	\$ 0
Other Federal Funds	\$ 0	\$	\$ 0
Recipient Contribution	\$ 0	\$	\$ 0
State Contribution	\$ 0	\$	\$ 0
Local Contribution	\$ 0	\$	\$ 0
Other Contribution	\$ 0	\$	\$ 0
Allowable Project Cost	\$ 3,094,908	\$ 1,567,232	\$ 4,662,140

Assistance Program (CFDA)	Statutory Authority	Regulatory Authority
66.509 - Science to Achieve Results (STAR) Program	Clean Air Act: Sec. 103 Clean Water Act: Sec. 104 Safe Drinking Water Act: Sec. 1442	N/A

Fiscal									
Site Name	Req No	FY	Approp. Code	Budget Organization	PRC	Object Class	Site/Project	Cost Organization	Obligation / Deobligation
-	0826UJRR08	0708	C	26UJ000	404FB2D	4141	-	-	98,350
-	0826TG0893	0809	C	26T4000	404FB2DPV	4141	-	-	1,468,882
									1,567,232

## Budget Summary Page

Table A - Object Class Category (Non-construction)	Total Approved Allowable Budget Period Cost
1. Personnel	(b) (4), (b) (6)
2. Fringe Benefits	
3. Travel	
4. Equipment	
5. Supplies	
6. Contractual	
7. Construction	
8. Other	
9. Total Direct Charges	
10. Indirect Costs: <u>56.00</u> % Base <u>MTDC</u>	
11. Total (Share: Recipient <u>0.00</u> % Federal <u>0.00</u> %.)	\$7,735,637
12. Total Approved Assistance Amount	\$1,567,232
13. Program Income	\$0
14. Total EPA Amount Awarded This Action	\$1,567,232
15. Total EPA Amount Awarded To Date	\$4,662,140

## **Administrative Conditions**

1.

Minority Business Enterprises (MBE)/Women's Business Enterprises (WBE) Terms and Conditions for non-SRF Recipients with EPA-approved FY2006 MBE/WBE Goals that were not based on historical data of dollars awarded to MBEs and WBEs

1. The recipient agrees to comply with the requirements of EPA's Program for Utilization of Small, Minority and Women's Business Enterprises in procurement under assistance agreements:

(a) The recipient accepts the applicable FY2006 Minority Business Enterprise (MBE)/Womens' Business Enterprise (WBE) "fair share" goals/objectives negotiated with EPA by the State as the FY2006 MBE/WBE "fair share" goals/objectives as follows:

	MBE	WBE
Construction	<u>8</u> %	<u>5</u> %
Supplies	<u>7</u> %	<u>9</u> %
Services	<u>7</u> %	<u>9</u> %
Equipment	<u>9</u> %	<u>9</u> %

OR

Combined Rate:      \_\_\_\_\_ %                      \_\_\_\_\_ %

If the recipient wishes to negotiate their own MBE/WBE goals, the recipient must submit proposed MBE/WBE goals based on an availability analysis, or, at their option, a disparity study, of qualified MBEs and WBEs to do the work in the relevant market for construction, equipment, services, and supplies. The recipient agrees to submit proposed "fair share" objectives, together with the supporting availability analysis or disparity study, to the MBE/WBE Coordinator, Veronica Squirrel, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW Mail Code 3903R, Room 51275, Washington, DC 20460, 202-564-5347, within 30 days of award. EPA will conclude "fair share" negotiations within 30 days of receiving the submission. Once EPA approves the objectives, the recipient agrees to apply them in accordance with paragraphs 1.(b)-(f).

(b)(1) The recipient agrees to ensure, to the fullest extent possible, that at least the applicable "fair share" objectives of Federal funds for prime contracts or subcontracts for supplies, construction, equipment or services are made available to organizations owned or controlled by socially and economically disadvantaged individuals, women and Historically Black Colleges and Universities .

(2) For assistance agreements related to research under the Clean Air Act Amendments of 1990, the recipient agrees to ensure, to the fullest extent possible, that at least the applicable "fair share" objectives of Federal funds for prime contracts or subcontracts for supplies, construction, equipment or services are made available to organizations owned or controlled by socially and economically disadvantaged individuals, women, disabled Americans, Historically Black Colleges and Universities, Colleges and Universities having a student body in which 40% or more of the students are Hispanic, minority institutions having a minority student body of 50% or more, and private and voluntary organizations controlled by individuals who are socially and economically disadvantaged .

(c) The recipient agrees to include in its bid documents the applicable "fair share" objectives of Federal funds and require all of its prime contractors to include in their bid documents for subcontracts the negotiated "fair share" percentages.

(d) The recipient agrees to follow the six affirmative steps or positive efforts stated in 40 CFR 30.44(b), 40 CFR 31.36(e), or 40 CFR 35.6580, as appropriate, and retain records documenting compliance.



(e) The recipient agrees to submit an EPA form 5700-52A "MBE/WBE Utilization Under Federal Grants, Cooperative Agreements and Interagency Agreements," beginning with the Federal fiscal year quarter the recipient receives the award and continuing until the project is completed. These reports must be submitted to MBE/WBE Coordinator, Veronica Squirrell, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW Mail Code 3903R, Room 51275, Washington, DC 20460, 202-564-5347, within 30 days of the end of the Federal fiscal quarter (January 30, April 30, July 30, and October 30). For assistance awards for continuing environmental programs (40 CFR Part 35, Subpart A and B) and assistance awards with institutions of higher education, hospitals and other non-profit organizations, the recipient agrees to submit an EPA form 5700-52A to MBE/WBE Coordinator, Veronica Squirrell, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW Mail Code 3903R, Room 51275, Washington, DC 20460, 202-564-5347, by October 30 of each year.

(f) If race and /or gender neutral efforts prove inadequate to achieve a "fair share" objective, the recipient agrees to notify EPA in advance of any race and/or gender conscious action it plans to take to more closely achieve the "fair share" objective.

2. The recipient agrees, if a contract is awarded under this assistance agreement, in accordance with Section 129 of Public Law 100-590, the Small Business Administration and Reauthorization and Amendment Act of 1988, to utilize and encourage the contractor to utilize small business located in rural areas (SBRA), to the maximum extent possible, through the use of the six affirmative steps.

3. EPA may take corrective action under 40 CFR Parts 30, 31, and 35, as appropriate, if the recipient fails to comply with these terms and conditions.

2. The chief executive officer of this recipient agency shall ensure that no grant funds awarded under this assistance agreement are used to engage in lobbying of the Federal Government or in litigation against the United States unless authorized under existing law. The recipient shall abide by its respective OMB Circular (A-21, A-87, or A-122), which prohibits the use of federal grant funds for litigation against the United States or for lobbying or other political activities.

3. Recipients shall fully comply with Subpart C of 40 CFR Part 32, entitled "Responsibilities of Participants Regarding Transactions." Recipient is responsible for ensuring that any lower tier covered transaction, as described in Subpart B of 40 CFR Part 32, entitled "Covered Transactions," includes a term or condition requiring compliance with Subpart C. Recipient is responsible for further requiring the inclusion of a similar term or condition in any subsequent lower tier covered transactions. Recipient acknowledges that failing to disclose the information required under 40 CFR 32.335 may result in the delay or negation of this assistance agreement, or pursuance of legal remedies, including suspension and debarment.

Recipients may access the Excluded Parties List System at <http://www.epls.gov>. This term and condition supersedes EPA Form 5700-49, "Certification Regarding Debarment, Suspension, and Other Responsibility Matters."

4.

a. The recipient agrees to:

- (1) Establish all subaward agreements in writing;
- (2) Maintain primary responsibility for ensuring successful completion of the EPA-approved project (this responsibility cannot be delegated or transferred to a subrecipient);
- (3) Ensure that any subawards comply with the standards in Section 210(a)-(d) of OMB Circular A-133 and are not used to acquire commercial goods or services for the recipient;
- (4) Ensure that any subawards are awarded to eligible subrecipients and that proposed subaward costs are necessary, reasonable, and allocable;
- (5) Ensure that any subawards to 501(c)(4) organizations do not involve lobbying activities;
- (6) Monitor the performance of their recipients and ensure that they comply with all applicable regulations, statutes, and terms and conditions which flow down in the subaward;
- (7) Obtain EPA's consent before making a subaward to a foreign or international organization, or a

- subaward to be performed in a foreign country; and
- (8) Obtain approval from EPA for any new subaward work that is not outlined in the approved work plan in accordance with 40 CFR Parts 30.25 and 31.30, as applicable.
- b. Any questions about subrecipient eligibility or other issues pertaining to subawards should be addressed to the recipient's EPA Project Officer. Additional information regarding subawards may be found at <http://www.epa.gov/ogd/guide/subaward-policy-part-2.pdf>. Guidance for distinguishing between vendor and subrecipient relationships and ensuring compliance with Section 210(a)-(d) of OMB Circular A-133 can be found at <http://www.epa.gov/ogd/guide/subawards-appendix-b.pdf> and <http://www.whitehouse.gov/omb/circulars/a133/a133.html>.
- c. The recipient is responsible for selecting its subrecipients and, if applicable, for conducting subaward competitions.

5. EPA's financial obligations to the recipient are limited by the amount of federal funding awarded to date as shown on line 15 in its EPA approved budget. If the recipient incurs costs in anticipation of receiving additional funds from EPA, it does so at its own risk.

6.

1. You as the recipient, your employees, subrecipients under this award, and subrecipients' employees may not engage in severe forms of trafficking in persons during the period of time that the award is in effect; procure a commercial sex act during the period of time that the award is in effect; or use forced labor in the performance of the award or subawards under the award.

2. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if you or a subrecipient that is a private entity is determined to have violated a prohibition in paragraph 1 of this award term; or ii. Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph 1 of this award term through conduct that is either A. Associated with performance under this award; or B. Imputed to you or the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," as implemented by our agency at 2 CFR part 1532.

You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph 1 of this award term. Our right to terminate unilaterally that is described in paragraph 2 a or b of this section: i. Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and ii. Is in addition to all other remedies for noncompliance that are available to us under this award.

3. You must include the requirements of paragraph a.1 of this award term in any subaward you make to a private entity.

All Administrative Conditions Remain the Same

### **Programmatic Conditions**

All Programmatic Conditions Remain the Same



	<b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b>  <b>Assistance Amendment</b>		ASSISTANCE ID NO.			DATE OF AWARD 03/04/2009
			PRG	DOC ID	AMEND#	
			RD - 83329301 - 3			MAILING DATE 03/11/2009
			TYPE OF ACTION Augmentation: Increase			
RECIPIENT TYPE: Private University		Send Payment Request to: Las Vegas Finance Center			ACH# 2011	
RECIPIENT: Duke University P O. BOX 90077 Durham, NC 27708-0077 EIN: 56-0532129		PAYEE: Director, ORS Duke University P.O. Box 90077 Durham, NC 27708-0077				
PROJECT MANAGER Marie Miranda LSRC A133, Box 90326 Durham, NC 27708 E-Mail: mmiranda@duke.edu Phone: 919-613-8023		EPA PROJECT OFFICER Linda Bishop 1200 Pennsylvania Ave, NW, 8723F Washington, DC 20460 E-Mail: bishop.linda@epa.gov Phone: 202-343-9715		EPA GRANT SPECIALIST Joselynn Hawkins 1200 Pennsylvania Ave, NW Washington, DC 20460, 3903R E-Mail: hawkins.joselynn@epa.gov Phone: 202-564-5305		
<b>PROJECT TITLE AND EXPLANATION OF CHANGES</b> FDP - Southern Center on Environmentally-Driven Disparities In Birth Outcomes - The objective of the Southern Center on Environmentally-Driven Disparities in Birth Outcomes (SCEDDBO) is to determine how environmental, social, and host factors jointly drive health disparities and birth outcomes. The Center will support the following three highly integrated studies: (1) a geographic information system based, statistics project; (2) a community-based birth cohort; and (3) a basic science animal model. Incremental Amendment,						
BUDGET PERIOD 05/01/2007 - 04/30/2012		PROJECT PERIOD 05/01/2007 - 04/30/2012		TOTAL BUDGET PERIOD COST \$7,735,637.00		
				TOTAL PROJECT PERIOD COST \$7,735,637.00		
<b>NOTICE OF AWARD</b>						
Based on your application dated 08/09/2006, including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA), hereby awards \$1,542,735. EPA agrees to cost-share 100.00% of all approved budget period costs incurred, up to and not exceeding total federal funding of \$6,204,875. Such award may be terminated by EPA without further cause if the recipient fails to provide timely affirmation of the award by signing under the Affirmation of Award section and returning all pages of this agreement to the Grants Management Office listed below within 21 days after receipt, or any extension of time, as may be granted by EPA. This agreement is subject to applicable EPA statutory provisions. The applicable regulatory provisions are 40 CFR Chapter 1, Subchapter B, and all terms and conditions of this agreement and any attachments.						
ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)			AWARD APPROVAL OFFICE			
ORGANIZATION / ADDRESS Grants and Interagency Agreement Management Division 1200 Pennsylvania Ave, NW Mail code 3903R Washington, DC 20460			ORGANIZATION / ADDRESS Environmental Protection Agency Office of Research and Development 1200 Pennsylvania Ave, NW Washington, DC 20460			
THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY						
SIGNATURE OF AWARD OFFICIAL Digital signature applied by EPA Award Official		TYPED NAME AND TITLE Jeff Meetre, Chief - Grants Management Branch A		DATE 03/04/2009		
<b>AFFIRMATION OF AWARD</b>						
BY AND ON BEHALF OF THE DESIGNATED RECIPIENT ORGANIZATION						
SIGNATURE		TYPED NAME AND TITLE		DATE		



RD - 83329301 - 3 Page 2

FUNDS	FORMER AWARD	THIS ACTION	AMENDED TOTAL
EPA Amount This Action	\$ 4,662,140	\$ 1,542,735	\$ 6,204,875
EPA In-Kind Amount	\$ 0	\$	\$ 0
Unexpended Prior Year Balance	\$ 0	\$	\$ 0
Other Federal Funds	\$ 0	\$	\$ 0
Recipient Contribution	\$ 0	\$	\$ 0
State Contribution	\$ 0	\$	\$ 0
Local Contribution	\$ 0	\$	\$ 0
Other Contribution	\$ 0	\$	\$ 0
Allowable Project Cost	\$ 4,662,140	\$ 1,542,735	\$ 6,204,875

Assistance Program (CFDA)	Statutory Authority	Regulatory Authority
66.509 - Science to Achieve Results (STAR) Program	Clean Air Act: Sec. 103 Clean Water Act: Sec. 104 Safe Drinking Water Act: Sec. 1442	N/A

## Fiscal

[illegible]

## Budget Summary Page

Table A - Object Class Category (Non-construction)	Total Approved Allowable Budget Period Cost
1. Personnel	(b) (4), (b) (6)
2. Fringe Benefits	
3. Travel	
4. Equipment	
5. Supplies	
6. Contractual	
7. Construction	
8. Other	
9. Total Direct Charges	
10. Indirect Costs: <u>56.00</u> % Base <u>MTDC</u>	
11. Total (Share: Recipient <u>0.00</u> % Federal <u>100.00</u> %.)	\$7,735,637
12. Total Approved Assistance Amount	\$7,735,637
13. Program Income	\$0
14. Total EPA Amount Awarded This Action	\$1,542,735
15. Total EPA Amount Awarded To Date	\$6,204,875

## **Administrative Conditions**

1. Minority Business Enterprises (MBE)/Women's Business Enterprises (WBE) Terms and Conditions for non-SRF Recipients with EPA-approved FY2006 MBE/WBE Goals that were not based on historical data of dollars awarded to MBEs and WBEs

1. The recipient agrees to comply with the requirements of EPA's Program for Utilization of Small, Minority and Women's Business Enterprises in procurement under assistance agreements:

(a) The recipient accepts the applicable FY2006 Minority Business Enterprise (MBE)/Womens' Business Enterprise (WBE) "fair share" goals/objectives negotiated with EPA by the State as the FY2006 MBE/WBE "fair share" goals/objectives as follows:

	MBE	WBE
Construction	8%	5%
Supplies	7%	9%
Services	7%	9%
Equipment	9%	9%

OR

Combined Rate:	%	%
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If the recipient wishes to negotiate their own MBE/WBE goals, the recipient must submit proposed MBE/WBE goals based on an availability analysis, or, at their option, a disparity study, of qualified MBEs and WBEs to do the work in the relevant market for construction, equipment, services, and supplies. The recipient agrees to submit proposed "fair share" objectives, together with the supporting availability analysis or disparity study, to the MBE/WBE Coordinator, Veronica Squirrel, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW Mail Code 3903R, Room 51275, Washington, DC 20460, 202-564-5347, within 30 days of award. EPA will conclude "fair share" negotiations within 30 days of receiving the submission. Once EPA approves the objectives, the recipient agrees to apply them in accordance with paragraphs 1.(b)-(f).

(b)(1) The recipient agrees to ensure, to the fullest extent possible, that at least the applicable "fair share" objectives of Federal funds for prime contracts or subcontracts for supplies, construction, equipment or services are made available to organizations owned or controlled by socially and economically disadvantaged individuals, women and Historically Black Colleges and Universities.

(2) For assistance agreements related to research under the Clean Air Act Amendments of 1990, the recipient agrees to ensure, to the fullest extent possible, that at least the applicable "fair share" objectives of Federal funds for prime contracts or subcontracts for supplies, construction, equipment or services are made available to organizations owned or controlled by socially and economically disadvantaged individuals, women, disabled Americans, Historically Black Colleges and Universities, Colleges and Universities having a student body in which 40% or more of the students are Hispanic, minority institutions having a minority student body of 50% or more, and private and voluntary organizations controlled by individuals who are socially and economically disadvantaged.

(c) The recipient agrees to include in its bid documents the applicable "fair share" objectives of Federal funds and require all of its prime contractors to include in their bid documents for subcontracts the negotiated "fair share" percentages.

(d) The recipient agrees to follow the six affirmative steps or positive efforts stated in 40 CFR 30.44(b), 40 CFR 31.36(e), or 40 CFR 35.6580, as appropriate, and retain records documenting compliance.

(e) The recipient agrees to submit an EPA form 5700-52A "MBE/WBE Utilization Under Federal Grants,



Cooperative Agreements and Interagency Agreements," beginning with the Federal fiscal year quarter the recipient receives the award and continuing until the project is completed. These reports must be submitted to MBE/WBE Coordinator, Veronica Squirrell, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW Mail Code 3903R, Room 51275, Washington, DC 20460, 202-564-5347, within 30 days of the end of the Federal fiscal quarter (January 30, April 30, July 30, and October 30). For assistance awards for continuing environmental programs (40 CFR Part 35, Subpart A and B) and assistance awards with institutions of higher education, hospitals and other non-profit organizations, the recipient agrees to submit an EPA form 5700-52A to MBE/WBE Coordinator, Veronica Squirrell, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW Mail Code 3903R, Room 51275, Washington, DC 20460, 202-564-5347, by October 30 of each year.

(f) If race and /or gender neutral efforts prove inadequate to achieve a "fair share" objective, the recipient agrees to notify EPA in advance of any race and/or gender conscious action it plans to take to more closely achieve the "fair share" objective.

2. The recipient agrees, if a contract is awarded under this assistance agreement, in accordance with Section 129 of Public Law 100-590, the Small Business Administration and Reauthorization and Amendment Act of 1988, to utilize and encourage the contractor to utilize small business located in rural areas (SBRA), to the maximum extent possible, through the use of the six affirmative steps.

3. EPA may take corrective action under 40 CFR Parts 30, 31, and 35, as appropriate, if the recipient fails to comply with these terms and conditions.

2. Recipients shall fully comply with Subpart C of 40 CFR Part 32, entitled "Responsibilities of Participants Regarding Transactions." Recipient is responsible for ensuring that any lower tier covered transaction, as described in Subpart B of 40 CFR Part 32, entitled "Covered Transactions," includes a term or condition requiring compliance with Subpart C. Recipient is responsible for further requiring the inclusion of a similar term or condition in any subsequent lower tier covered transactions. Recipient acknowledges that failing to disclose the information required under 40 CFR 32.335 may result in the delay or negation of this assistance agreement, or pursuance of legal remedies, including suspension and debarment.

Recipients may access the Excluded Parties List System at <http://www.epls.gov>. This term and condition supersedes EPA Form 5700-49, "Certification Regarding Debarment, Suspension, and Other Responsibility Matters."

3. a. The recipient agrees to:

- (1) Establish all subaward agreements in writing;
- (2) Maintain primary responsibility for ensuring successful completion of the EPA-approved project (this responsibility cannot be delegated or transferred to a subrecipient);
- (3) Ensure that any subawards comply with the standards in Section 210(a)-(d) of OMB Circular A-133 and are not used to acquire commercial goods or services for the recipient;
- (4) Ensure that any subawards are awarded to eligible subrecipients and that proposed subaward costs are necessary, reasonable, and allocable;
- (5) Ensure that any subawards to 501(c)(4) organizations do not involve lobbying activities;
- (6) Monitor the performance of their recipients and ensure that they comply with all applicable regulations, statutes, and terms and conditions which flow down in the subaward;
- (7) Obtain EPA's consent before making a subaward to a foreign or international organization, or a subaward to be performed in a foreign country; and
- (8) Obtain approval from EPA for any new subaward work that is not outlined in the approved work plan in accordance with 40 CFR Parts 30.25 and 31.30, as applicable.

b. Any questions about subrecipient eligibility or other issues pertaining to subawards should be addressed to the recipient's EPA Project Officer. Additional information regarding subawards may be found at <http://www.epa.gov/ogd/guide/subaward-policy-part-2.pdf>. Guidance for distinguishing between vendor and subrecipient relationships and ensuring compliance with Section 210(a)-(d) of OMB Circular A-133 can be found at <http://www.epa.gov/ogd/guide/subawards-appendix-b.pdf> and

<http://www.whitehouse.gov/omb/circulars/a133/a133.html>.

c. The recipient is responsible for selecting its subrecipients and, if applicable, for conducting subaward competitions.

4. EPA's financial obligations to the recipient are limited by the amount of federal funding awarded to date as shown on line 15 in its EPA approved budget. If the recipient incurs costs in anticipation of receiving additional funds from EPA, it does so at its own risk.

5. 1. You as the recipient, your employees, subrecipients under this award, and subrecipients' employees may not engage in severe forms of trafficking in persons during the period of time that the award is in effect; procure a commercial sex act during the period of time that the award is in effect; or use forced labor in the performance of the award or subawards under the award.

2. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if you or a subrecipient that is a private entity is determined to have violated a prohibition in paragraph 1 of this award term; or ii. Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph 1 of this award term through conduct that is either A. Associated with performance under this award; or B. Imputed to you or the subrecipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, "OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," as implemented by our agency at 2 CFR part 1532.

You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph 1 of this award term. Our right to terminate unilaterally that is described in paragraph 2 a or b of this section: i. Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and ii. Is in addition to all other remedies for noncompliance that are available to us under this award.

3. You must include the requirements of paragraph a.1 of this award term in any subaward you make to a private entity.

6. EPA is partially funding this budget period and will consider funding the balance of the budget request contingent upon satisfactory progress as certified by the EPA Project Officer, the availability of funds, and EPA priorities. It is understood that the scope of work will be renegotiated to reflect the amount awarded if additional funds are not available.

All Other Administrative Conditions Remain the Same.

### **Programmatic Conditions**

All Programmatic Conditions Remain the Same





	<b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b>  <b>Assistance Amendment</b>	<b>ASSISTANCE ID NO.</b>			<b>DATE OF AWARD</b> 10/07/2009
		<b>PRG</b>	<b>DOC ID</b>	<b>AMEND#</b>	
		<b>RD - 83329301 - 4</b>			<b>MAILING DATE</b> 10/14/2009
		<b>TYPE OF ACTION</b> Augmentation: Increase			
<b>RECIPIENT TYPE:</b> Private University		<b>PAYMENT METHOD:</b> ACH			<b>ACH#</b> 2011
<b>RECIPIENT:</b> Duke University P.O. BOX 90077 Durham, NC 27708-0077 EIN: 56-0532129		<b>Send Payment Request to:</b> Las Vegas Finance Center			
		<b>PAYEE:</b> Director, ORS Duke University P.O. Box 90077 Durham, NC 27708-0077			
<b>PROJECT MANAGER</b> Marie Miranda P.O. BOX 90077 Durham, NC 27708-0077 E-Mail: mmiranda@duke.edu Phone: 919-613-8023		<b>EPA PROJECT OFFICER</b> Nigel Fields 1200 Pennsylvania Ave, NW, 8723F Washington, DC 20460 E-Mail: fields.nigel@epa.gov Phone: 202-343-9767		<b>EPA GRANT SPECIALIST</b> Joselynn Hawkins 1200 Pennsylvania Ave, NW Washington, DC 20460, 3903R E-Mail: hawkins.joselynn@epa.gov Phone: 202-564-5305	
<b>PROJECT TITLE AND EXPLANATION OF CHANGES</b> FDP - Southern Center on Environmentally-Driven Disparities In Birth Outcomes - The objective of the Southern Center on Environmentally-Driven Disparities in Birth Outcomes (SCEDDBO) is to determine how environmental, social, and host factors jointly drive health disparities and birth outcomes. The Center will support the following three highly integrated studies: (1) a geographic information system based, statistics project; (2) a community-based birth cohort; and (3) a basic science animal model. Incremental Amendment;					
<b>BUDGET PERIOD</b> 05/01/2007 - 04/30/2012		<b>PROJECT PERIOD</b> 05/01/2007 - 04/30/2012		<b>TOTAL BUDGET PERIOD COST</b> \$7,735,637.00	
				<b>TOTAL PROJECT PERIOD COST</b> \$7,735,637.00	
<b>NOTICE OF AWARD</b>					
Based on your application dated 08/09/2006, including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA), hereby awards \$1,530,762. EPA agrees to cost-share 100.00% of all approved budget period costs incurred, up to and not exceeding total federal funding of \$7,735,637. Such award may be terminated by EPA without further cause if the recipient fails to provide timely affirmation of the award by signing under the Affirmation of Award section and returning all pages of this agreement to the Grants Management Office listed below within 21 days after receipt, or any extension of time, as may be granted by EPA. This agreement is subject to applicable EPA statutory provisions. The applicable regulatory provisions are 40 CFR Chapter 1, Subchapter B, and all terms and conditions of this agreement and any attachments.					
<b>ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)</b>			<b>AWARD APPROVAL OFFICE</b>		
<b>ORGANIZATION / ADDRESS</b> Grants and Interagency Agreement Management Division 1200 Pennsylvania Ave, NW Mail code 3903R Washington, DC 20460			<b>ORGANIZATION / ADDRESS</b> Environmental Protection Agency Office of Research and Development 1200 Pennsylvania Ave, NW Washington, DC 20460		
<b>THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY</b>					
<b>SIGNATURE OF AWARD OFFICIAL</b> Digital signature applied by EPA Award Official		<b>TYPED NAME AND TITLE</b> Jeff Meetre, Chief - Grants Management Branch A			<b>DATE</b> 10/07/2009
<b>AFFIRMATION OF AWARD</b>					
<b>BY AND ON BEHALF OF THE DESIGNATED RECIPIENT ORGANIZATION</b>					
<b>SIGNATURE</b>		<b>TYPED NAME AND TITLE</b>			<b>DATE</b>



## RD - 83329301 - 4 Page 2

FUNDS	FORMER AWARD	THIS ACTION	AMENDED TOTAL
EPA Amount This Action	\$ 6,204,875	\$ 1,530,762	\$ 7,735,637
EPA In-Kind Amount	\$ 0	\$	\$ 0
Unexpended Prior Year Balance	\$ 0	\$	\$ 0
Other Federal Funds	\$ 0	\$	\$ 0
Recipient Contribution	\$ 0	\$	\$ 0
State Contribution	\$ 0	\$	\$ 0
Local Contribution	\$ 0	\$	\$ 0
Other Contribution	\$ 0	\$	\$ 0
Allowable Project Cost	\$ 6,204,875	\$ 1,530,762	\$ 7,735,637

Assistance Program (CFDA)	Statutory Authority	Regulatory Authority
66.509 - Science to Achieve Results (STAR) Program	Clean Air Act: Sec. 103 Clean Water Act: Sec. 104 Safe Drinking Water Act: Sec. 1442	N/A

[illegible]

## Budget Summary Page

Table A - Object Class Category (Non-construction)	Total Approved Allowable Budget Period Cost
1. Personnel	(b) (4), (b) (6)
2. Fringe Benefits	
3. Travel	
4. Equipment	
5. Supplies	
6. Contractual	
7. Construction	
8. Other	
9. Total Direct Charges	
10. Indirect Costs: <u>56.00</u> % Base <u>MTDC</u>	
11. Total (Share: Recipient <u>0.00</u> % Federal <u>100.00</u> %.)	\$7,735,637
12. Total Approved Assistance Amount	\$7,735,637
13. Program Income	\$0
14. Total EPA Amount Awarded This Action	\$1,530,762
15. Total EPA Amount Awarded To Date	\$7,735,637

## **Administrative Conditions**

### **1. UTILIZATION OF SMALL, MINORITY AND WOMEN'S BUSINESS ENTERPRISES**

#### **GENERAL COMPLIANCE, 40 CFR, Part 33**

The recipient agrees to comply with the requirements of EPA's Program for Utilization of Small, Minority and Women's Business Enterprises in procurement under assistance agreements, contained in 40 CFR, Part 33.

#### **FAIR SHARE OBJECTIVES, 40 CFR, Part 33, Subpart D**

A recipient must negotiate with the appropriate EPA award official, or his/her designee, fair share objectives for MBE and WBE (MBE/WBE) participation in procurement under the financial assistance agreements.

#### **Accepting the Fair Share Objectives/Goals of Another Recipient**

The dollar amount of this assistance agreement is \$250,000, or more; or the total dollar amount of all of the recipient's non-TAG assistance agreements from EPA in the current fiscal year is \$250,000, or more. The recipient accepts the applicable MBE/WBE fair share objectives/goals negotiated with EPA by the State of North Carolina as follows:

	MBE	WBE
Construction	8%	5%
Supplies	7%	9%
Services	7%	9%
Equipment	7%	9%

By signing this financial assistance agreement, the recipient is accepting the fair share objectives/goals stated above and attests to the fact that it is purchasing the same or similar construction, supplies, services and equipment, in the same or similar relevant geographic buying market as the State of North Carolina.

#### **Negotiating Fair Share Objectives/Goals, 40 CFR, Section 33.404**

The recipient has the option to negotiate its own MBE/WBE fair share objectives/goals. If the recipient wishes to negotiate its own MBE/WBE fair share objectives/goals, the recipient agrees to submit proposed MBE/WBE objectives/goals based on an availability analysis, or disparity study, of qualified MBEs and WBEs in their relevant geographic buying market for construction, services, supplies and equipment.

The submission of proposed fair share goals with the supporting analysis or disparity study means that the recipient is not accepting the fair share objectives/goals of another recipient. The recipient agrees to submit proposed fair share objectives/goals, together with the supporting availability analysis or disparity study, to the Regional MBE/WBE Coordinator within 120 days of its acceptance of the financial assistance award. EPA will respond to the proposed fair share objective/goals within 30 days of receiving the submission. If proposed fair share objective/goals are not received within the 120 day time frame, the recipient may not expend its EPA funds for procurements until the proposed fair share objective/goals are submitted.

#### **SIX GOOD FAITH EFFORTS, 40 CFR, Part 33, Subpart C**

Pursuant to 40 CFR, Section 33.301, the recipient agrees to make the following good faith efforts whenever procuring construction, equipment, services and supplies under an EPA financial assistance agreement, and to ensure that sub-recipients, loan recipients, and prime contractors also comply. Records documenting compliance with the six good faith efforts shall be retained:



- (a) Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
- (b) Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
- (c) Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
- (d) Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
- (e) Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.
- (f) If the prime contractor awards subcontracts, require the prime contractor to take the steps in paragraphs (a) through (e) of this section.

#### **MBE/WBE REPORTING, 40 CFR, Part 33, Sections 33.502 and 33.503**

The recipient agrees to complete and submit EPA Form 5700-52A, "MBE/WBE Utilization Under Federal Grants, Cooperative Agreements and Interagency Agreements" beginning with the Federal fiscal year reporting period the recipient receives the award, and continuing until the project is completed. Only procurements with certified MBE/WBEs are counted toward a recipient's MBE/WBE accomplishments. The reports must be submitted annually for the period ending September 30th for:

40 CFR Part 30 Recipients (Non-profits and Institutions of Higher Education); and  
40 CFR Part 35 Subpart A and Subpart B Recipients.

The reports are due within 30 days of the end of the annual reporting period (October 30th). Reports should be sent to Veronica Squirrell, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW Mail Code 3903R, Room 51275, Washington, DC 20460, 202-564-5347. Final MBE/WBE reports must be submitted within 90 days after the project period of the grant ends. Your grant cannot be officially closed without all MBE/WBE reports.

EPA Form 5700-52A may be obtained from the EPA Office of Small Business Program's Home Page on the Internet at [www.epa.gov/osbp](http://www.epa.gov/osbp).

#### **CONTRACT ADMINISTRATION PROVISIONS, 40 CFR, Section 33.302**

The recipient agrees to comply with the contract administration provisions of 40 CFR, Section 33.302.

#### **BIDDERS LIST, 40 CFR, Section 33.501(b) and (c)**

Recipients of a Continuing Environmental Program Grant or other annual reporting grant, agree to create and maintain a bidders list. Recipients of an EPA financial assistance agreement to capitalize a revolving loan fund also agree to require entities receiving identified loans to create and maintain a bidders list if the recipient of the loan is subject to, or chooses to follow, competitive bidding requirements. Please see 40 CFR, Section 33.501 (b) and (c) for specific requirements and exemptions.

2. This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase V Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.


In accordance with the Federal Register/Vol.73, No. 17/ Friday, January 25, 2008/Notices, Page 4563, this assistance agreement is subject to the core set of standard requirements developed by the Research Business Models (RBM) Subcommittee of the Committee on Science, a committee of the National Science and Technology Council. These requirements are posted on the following National Science Foundation website:

<http://www.nsf.gov/bfa/dias/policy/rtc/index.jsp>

All other Administrative Conditions remain the Same.

### **Programmatic Conditions**

All Programmatic Conditions Remain the Same

	<b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b>  <b>Assistance Amendment</b>		GRANT NUMBER (FAIN): 83329301	DATE OF AWARD
			MODIFICATION NUMBER: 5	05/29/2012
			PROGRAM CODE: RD	MAILING DATE
			TYPE OF ACTION No Cost Amendment	05/31/2012
RECIPIENT TYPE: Private University		Send Payment Request to: Las Vegas Finance Center		
RECIPIENT:		PAYEE:		
Duke University P.O. BOX 90077 Durham, NC 27708-0077 EIN: 56-0532129		Director, ORS Duke University P.O. Box 90077 Durham, NC 27708-0077		
PROJECT MANAGER	EPA PROJECT OFFICER	EPA GRANT SPECIALIST		
Marie Miranda P.O. BOX 90077 Durham, NC 27708-0077 E-Mail: mmiranda@duke.edu Phone: 919-613-8023	Richard Callan 1200 Pennsylvania Ave, NW, 8723P Washington, DC 20460 E-Mail: callan.richard@epa.gov Phone: 202-343-9637	Joselynn Hawkins 1200 Pennsylvania Ave, NW Washington, DC 20460, 3903R E-Mail: hawkins.joselynn@epa.gov Phone: 202-564-5305		
PROJECT TITLE AND EXPLANATION OF CHANGES FDP - Southern Center on Environmentally-Driven Disparities In Birth Outcomes - Time extension and Budget Revision to incorporate subaward				
BUDGET PERIOD 05/01/2007 - 04/30/2014	PROJECT PERIOD 05/01/2007 - 04/30/2014	TOTAL BUDGET PERIOD COST \$7,735,637.00	TOTAL PROJECT PERIOD COST \$7,735,637.00	

### NOTICE OF AWARD

Based on your application dated 08/09/2006, including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA), hereby awards \$. EPA agrees to cost-share 100.00% of all approved budget period costs incurred, up to and not exceeding total federal funding of \$7,735,637. Such award may be terminated by EPA without further cause if the recipient fails to provide timely affirmation of the award by signing under the Affirmation of Award section and returning all pages of this agreement to the Grants Management Office listed below within 21 days after receipt, or any extension of time, as may be granted by EPA. This agreement is subject to applicable EPA statutory provisions. The applicable regulatory provisions are 40 CFR Chapter 1, Subchapter B, and all terms and conditions of this agreement and any attachments.

ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)		AWARD APPROVAL OFFICE	
ORGANIZATION / ADDRESS		ORGANIZATION / ADDRESS	
Grants and Interagency Agreement Management Division 1200 Pennsylvania Ave, NW Mail code 3903R Washington, DC 20460		Environmental Protection Agency Office of Research and Development 1200 Pennsylvania Ave, NW Washington, DC 20460	
THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY			
Digital signature applied by EPA Award Official for Jill D. Young - Chief - Grants Management Branch A Joselynn Hawkins - Award Official delegate			DATE 05/29/2012
AFFIRMATION OF AWARD			
BY AND ON BEHALF OF THE DESIGNATED RECIPIENT ORGANIZATION			
SIGNATURE	TYPED NAME AND TITLE		DATE



## RD - 83329301 - 5 Page 2

FUNDS	FORMER AWARD	THIS ACTION	AMENDED TOTAL
EPA Amount This Action	\$ 7,735,637	\$	\$ 7,735,637
EPA In-Kind Amount	\$ 0	\$	\$ 0
Unexpended Prior Year Balance	\$ 0	\$	\$ 0
Other Federal Funds	\$ 0	\$	\$ 0
Recipient Contribution	\$ 0	\$	\$ 0
State Contribution	\$ 0	\$	\$ 0
Local Contribution	\$ 0	\$	\$ 0
Other Contribution	\$ 0	\$	\$ 0
Allowable Project Cost	\$ 7,735,637	\$ 0	\$ 7,735,637

Assistance Program (CFDA)	Statutory Authority	Regulatory Authority
66.509 - Science to Achieve Results (STAR) Program	Clean Air Act: Sec. 103 Clean Water Act: Sec. 104 Safe Drinking Water Act: Sec. 1442	N/A

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12. Total Approved Assistance Amount	\$7,735,637
13. Program Income	\$0
14. Total EPA Amount Awarded This Action	\$0
15. Total EPA Amount Awarded To Date	\$7,735,637

**Administrative Conditions**

All Administrative Conditions Remain the Same

**Programmatic Conditions**

All Programmatic Conditions Remain the Same